

WHAT IS CLAIMED IS:

1. A recombinant plasmid, comprising (a) a ubiquitous promoter, (b) one fluorescent gene, said gene being operably linked to and inserted downstream of said ubiquitous promoter, (c) a skin-specific or muscle-specific promoter, and (d) another fluorescent gene, said gene being operably linked to and inserted downstream of said skin-specific or muscle-specific promoter, wherein the ubiquitous promoter and the skin-specific or muscle-specific promoter have the adverse directional property and the ubiquitous promoter and the skin-specific or muscle-specific promoter are located upstream of said fluorescent gene and said another fluorescent gene respectively so as to have the directional property which permits transcription of said genes.
2. The recombinant plasmid of Claim 1, wherein said ubiquitous promoter is selected from the group consisting of β -actin, elongation-1- α , 18 S-rDNA and 5S-rDNA.
3. The recombinant plasmid of Claim 1, wherein said skin-specific or muscle-specific promoter is selected from the group consisting of α -actin, troponin T, Troponin C, myosin heavy chain, cytokarotin type II C and S-100.
4. A host cell, comprising the plasmid of Claim 1.
5. A method of producing a transgenic fish, said method comprising:
 - a) introducing the plasmid of Claim 1 into a fish egg cell or embryonic cell, and

b) allowing the egg cell or embryonic cell to develop into a fish, wherein the plasmid of Claim 1 is introduced into the genome of the fish.

6. The transgenic fish of Claim 5, wherein the fish is selected from the group consisting of mekada, zebrafish, discus, goldfish, killifish, cichlid, guppy, arowana, koi and show betta.

7. A transgenic fish, which comprises (a) a ubiquitous promoter, (b) one fluorescent gene, said gene being operably linked to and inserted downstream of said ubiquitous promoter, (c) a skin-specific or muscle-specific promoter, and (d) another fluorescent gene, said gene being operably linked to and inserted downstream of said skin-specific or muscle-specific promoter, wherein the ubiquitous promoter and the skin-specific or muscle-specific promoter have the adverse directional property and the ubiquitous promoter and the skin-specific or muscle-specific promoter are located upstream of said fluorescent gene and said another fluorescent gene respectively so as to have the directional property which permits transcription of said genes.

8. The transgenic fish of Claim 7, wherein said fluorescent gene is selected from the group consisting of green, red, yellow and blue fluorescent genes.

9. The transgenic fish of Claim 8, wherein said fluorescent gene is selected from the group consisting of green and red fluorescent genes.

10. A method of producing a transgenic fish that expresses two different fluorescent genes simultaneously, said method comprises the following steps:

a) restricting the plasmid of Claim 1 with restriction enzymes in appropriate restriction sites to obtain two plasmid fragments I and II, wherein said

plasmid I contains the fragments a) and b) as defined in Claim 1 and said plasmid II contains the fragments c) and d) as defined in Claim 1;

b) introducing each of said plasmids I and II of step a) into fish egg cell or embryonic cell respectively;

5 c) allowing said fish to express the plasmids I and II simultaneously.

11. The method of Claim 10, wherein said fluorescent gene is selected from the group consisting of green, red, yellow and blue fluorescent genes.

12. The method of Claim 11, wherein said fluorescent gene is selected from the group consisting of green and red fluorescent genes.

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